AMENDMENTS TO THE CLAIMS WITH MARKINGS TO SHOW CHANGES MADE, AND LISTING OF ALL CLAIMS WITH PROPER IDENTIFIERS

1. (Currently amended) An electric machine, comprising:

a housing defining an axis;

a coolant entry arranged on one side of the housing ;

a cylindrical magnet arrangement received in the housing and defining a circumference; and

a cooling device for cooling the magnet arrangement, wherein the cooling device has a ~~circumferential~~ ring-shaped coolant channel extending radially outside the magnet arrangement about the circumference of the magnet arrangement[[,]] ~~disposed on the one side of the housing in fluid communication~~ and being fluidly connected with the coolant entry to receive incoming coolant from the coolant entry and to distribute the incoming coolant essentially uniformly ~~in a circumferential direction~~ about the circumference of the cylindrical magnet arrangement, said cooling device having separate rectilinear axial channels in fluid communication with the coolant channel to guide the coolant in axial direction to an opposite side of the housing.

2. (Previously presented) The electric machine as claimed in claim 1, wherein the coolant channel is part of the housing.

3.-4. (Canceled)

5. (Previously presented) The electric machine as claimed in claim 1, wherein the magnet arrangement has a laminated core forming a wall of the coolant channel.

6. (Previously presented) The electric machine as claimed in claim 1, wherein the coolant channel is arranged upstream of the cylindrical magnet arrangement, as viewed in an axial direction.

7. (Previously presented) The electric machine as claimed in claim 1, wherein the coolant channel is open in one or both axial directions, and further comprising a bearing shield and/or an annular cover for covering the coolant channel.

8. (Canceled)

9. (Previously presented) The electric machine as claimed in claim 1, further comprising a motor terminal junction box, wherein the coolant channel has a reduced dimension in a radial direction in a region of the motor terminal junction box.

10. (Previously presented) The electric machine as claimed in claim 1, wherein the housing is constructed in the form of a pressure plate structure.

11. (Withdrawn) A method for cooling an electric machine having a cylindrical magnet arrangement, comprising the steps of:

introducing a coolant stream, and

distributing the coolant stream, after being introduced into the electric machine at commencement of a cooling operation, essentially uniformly about a circumference of the magnet arrangement.

12. (Withdrawn) The method as claimed in claim 11, wherein the coolant stream is distributed on the magnet arrangement completely about the circumference before conducted in a radial or axial direction.

13. (Withdrawn) The method as claimed in claim 11, wherein the coolant stream, when being conducted around the magnet arrangement in a circumferential direction, is conducted directly past a laminated core of the magnet arrangement.

14. (Withdrawn) The method as claimed in claim 11, wherein the coolant stream is distributed in a circumferential direction upstream of the cylindrical magnet arrangement in an axial direction, before being conducted about the magnet arrangement.

15. (Withdrawn) The method as claimed in claim 11, wherein the coolant stream, after being distributed in the circumferential direction, is conducted in both axial directions.

16. (Previously presented) The electric machine as claimed in claim 1, wherein the housing has opposite drive and non-drive sides, said coolant entry being arranged on the non-drive side.

17. (Previously presented) The electric machine as claimed in claim 1, wherein the coolant entry is arranged on the coolant channel axially with respect to the cylindrical magnet arrangement.

18. (New) The electric machine as claimed in claim 1, wherein the coolant channel has a cross section which is greater than a summed cross section of the axial channels.